Central Delta Intakes

Concept

1. Phased small intakes around Macdonald Island. First would be 1,000 cfs with additional intakes added with time; these could be in different locations and different sizes with different screen configurations (different screen configurations could allow testing of different screen designs).

2. Water quality in this region is significantly better than found near Clifton Court Forebay and Tracy PP, especially in dry years. Particularly in the case of salinity but probably in the case of organic carbon as well. More direct access to Mokelumne River and Sacramento River water may improve export water quality under certain conditions.

3. The area is heavily influenced by tides and may allow positive screens with substantial transport flows across the screens, thus may allow the likelihood of better protection.

4. The gates would operate on the tides with gates behind the screen to prevent backflow, this would mean that there would be no diversions on ebb tides, so that fish, eggs and larvae passing the screen on the outgoing tide could pass without hindrance.

5. With multiple intakes (central and south Delta) may allow operations to avoid sensitive fisheries (smelt, salmon, splittail)

6. It is assumed that the project could be implemented in such a way that resolves impacts on fish that could be in the vicinity including resident and anadromous fish native to the Delta and to all rivers tributary to the Delta.

7. The conveyance could be directly connected to Delta Island storage. Water stored on nearby Delta island(s) could be discharged directly into Tracy for Ag use or for a recirculation scheme. Island storage with a direct connection to Clifton Court Forebay or the DMC could greatly improve the flexibility of the EWA.

8. With a direct connection to the islands or conveyance system, could be used to provide water to South Delta and Central Delta water users. Which would improve the quality of island drainage water returning to the Delta.

9. Could allow use of all south Delta channels as habitat.

10. Could reduce the zone of influence of the pumps in south Delta on fisheries.

Concerns

1. The diversion is to close to the "biological crossroads " of the Delta. Juvenile life stages from both San Joaquin and the Sacramento Rivers, including delta smelt, salmon, splittail and striped bass, plus the Mokelumne River and other delta tributaries move through this area, driven by tides and currents and mediated by behaviors. Any winter-run, spring-run or splittail from the Sacramento River which does not rear in upstream areas will likely rear in this general area, increasing risk to these species.

2. Moving zone of influence to overlap San Joaquin spawning area of striped bass and moves intake into an area of some delta smelt spawning. Striped base eggs and larvae are a major concern with screens in this region of the Delta.

3. Adds new major screens in the migration path of San Joaquin and Mokelumne River Salmon.

4. The fishery agencies would consider a 5,000 cfs diversion on the lower San Joaquin a dead situation, which would require salvaging at the screens.

5. A 5,000 cfs flat plate screen (non-salvage) with a delta smelt approach velocity (0.2 fps) would be approximately 2,000 feet long. For this length the NWFS screening criteria for length of time of exposure would be violated.

6. Unless all SWP/CVP diversions are moved to the central Delta may still have water quality and stage problems in the South Delta.

7. If the DCC is operated under current criteria probably will create water quality problems in the central Delta.

8. Operation and maintenance cost for multiple screens at multiple Delta locations would be complex and costly.

9. Could be perceived as the start of the PC growing from the south.

Evaluation Process

1. Define facilities and operational concept.

2. WMCT and the CVFFRT review concept.

3. Perform Delta Hydrodynamic modeling for stages and water quality impacts.

4. Game concept

5. Evaluate impacts and benefits.

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